

Castlemaine Naturalist

September 2020

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Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



Brush Bronzewing, Leanganook track
Rare sighting and photo by Euan Moore and Jenny Rolland

Geoff Williams - the world of the Platypus

Our August Webinar was addressed by Geoff Williams of the Australian Platypus Conservancy. Geoff has been studying the Platypus for some 25 years, and was a former Assistant Director of Taronga Zoo, and Director of the Healseville Sanctuary.

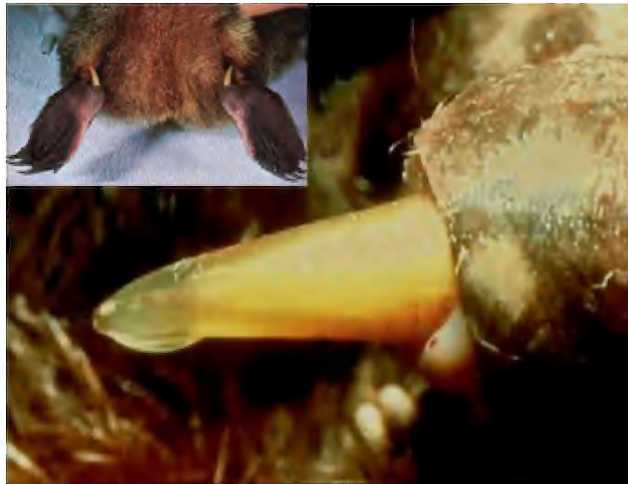
The peculiarities of this unique animal are well known to Australians, but caused some consternation among early naturalists. Geoff began by referring to an aboriginal explanation for its origin – something involving a dalliance between a water rat and a passing duck. European initial reactions were not that much different. The first specimen was suspected to be a hoax, and was examined for stitches attaching the bill. As none were found it was accepted as genuine. (fortunately this was well before the invention of 'super-glue')

In fact, the bill is not like a duck's except in superficial shape. It is soft and flexible, and contains very sensitive nerve endings. When it dives to forage on the bottom, its ears and eyes are covered by a membrane, and its unique 'sixth sense' within the bill is used to detect tiny electric fields generated by movement of its prey, apparently detectable within 10 to 12 cm. range.

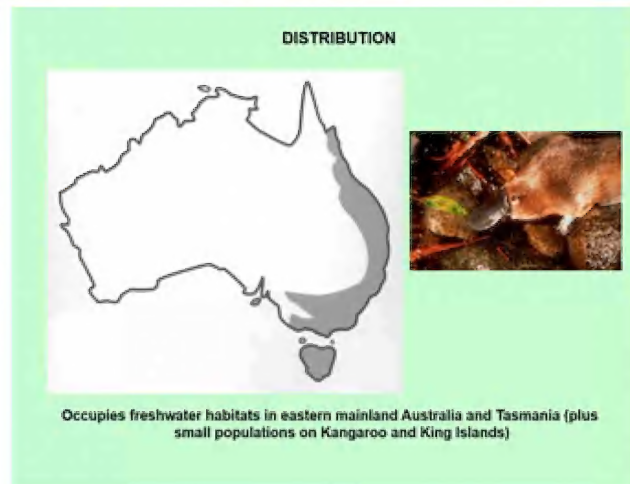
The Platypus lays one or two soft reptile like eggs which are incubated for 10 or 11 days. Unlike marsupial mammals it has no pouch or nipples. Milk is expressed from glands in the skin. The young grow rapidly on this very rich brew, and in three or four months are about half the weight of an adult.

Males are venomous from spurs at their rear ankles. An injection will not kill you, but causes excruciating pain. As they do not have an aggressive nature, this is only likely to happen if they are handled carelessly. In a rescue situation they should be picked up by the tail, and eyes covered while removing fishing line or whatever is causing the problem.

Long on the evolutionary tree, they are very well adapted to their watery environment. Apart from the unique bill they are covered with extremely dense insulating fur and have retractable webbing on the front feet. The back feet, with short claws, are used for the essential task of grooming, and when swimming fulfil the task of steering paddles.



Venomous spurs on the male



General distribution

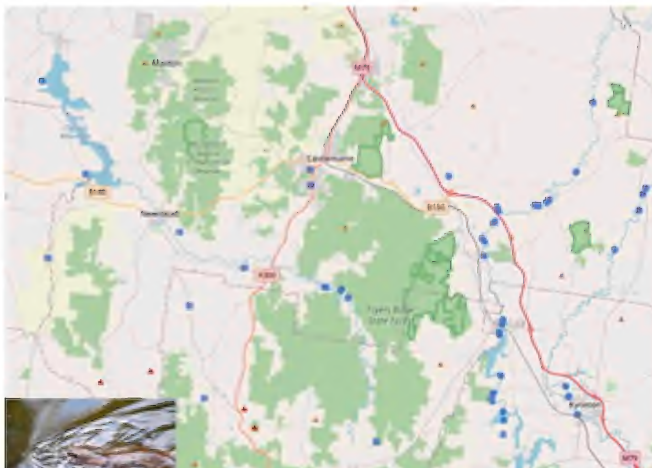
Platypuses live happily in all sorts of stream and lake environments, and may be close to urban activity. The critical requirements are that its food, mainly aquatic invertebrates, can be abundant, and that the banks are stable enough for the construction of burrows, preferably well hidden by vegetation. They are voracious feeders with a broad diet, so they need to be sparse in occurrence, perhaps two or three in a kilometre of a river like the Loddon.

What then are the threats? There is a high rate of juvenile mortality – one in five make it to adulthood. Foxes take many juveniles, rivers dry up in droughts, but the greatest problems come from human carelessness – illegal use of nets and yabby traps, discarded fishing line and hooks, and plastic waste like hair ties have caused disablement or drowning. The status is currently “near threatened”.

Locally, seven were counted in a survey of Campbells Creek, six of which were males, in a stretch where water is maintained by flow from the sewage treatment plant. However, occurrence in this part of the world is marginal. Geoff recommended that any sightings (of Rakali or Platypus) be reported to the Conservancy directly, as they are able to vet sightings and will pass them on to the Atlas of Living Australia. If you are interested in monitoring platypus, contact the Australian Platypus Monitoring Network.

Our thanks go to Geoff for a fascinating and detailed insight into this iconic animal and for the use of a few of his illustrations here. - Noel Young

Visual sightings reports



September Observations (1942)

George Broadway

Specimens sent to "Wildlife" magazine in Sept 1942. Are we finding the same specimens now in 2020 ?

Insects

Brighton: Pixie-cap caterpillar. Yellow-striped and comical looking, larva of one of the smaller brown Gum-tree moths. Not distinctive enough to have earned a common name. Perhaps it has since.

Mornington: Giant Stick-Insect or Phasma. Previously mentioned.

St Albans: Lovely jade and gold chrysalis of the Wanderer butterfly. Previously mentioned.

Mitcham: Caterpillar of the Wattle Goat Moth, largest in Victoria. Previously mentioned.

Geelong: Cocoon of the Emperor Gum Moth. Despite the name they also feed on Peppercorn trees and about 30 other plants.

Elsterwick: Caterpillar of the same.

Balwyn: The large flying insect was a Preying mantis (Or should it be Praying?, because of the way it holds the forelegs as it waits for an unwary prey to approach.

Tecoma: Another Pixie-cap caterpillar, this time described as being fawn with grey markings.

Cape Clear: The "eggs" are the mature females of the Wattle Berry Scale, which become attached to wattle stems where they suck the sap until they lose their legs and heads and become simply a bag of eggs.

Tomahawk Creek: Chrysalis of the Cabbage White butterfly.

Melbourne: The very tiny insects are Psochids or Booklice. Often found in houses and do little damage.

Barwon Heads: Gum Sawfly, parent of the ugly mass of larvae often found clustered on gum trees.

Canterbury: The two case moth cases joined together are interesting. Apparently two caterpillars tried to use the same stick to sew into their cases and neither would relinquish.

Landsborough: Emerald green cocoon of one of the rarer drinker moths. Most make pure paper-white cocoons.

Malvern: Chrysalis of one of the Wood moths or Cossid. Caterpillars feed on wood and live most of their lives underground before emerging as large moths.

Red Hill: Mountain grasshopper, although the mountain name is inaccurate. *Acridopeza reticulata*. See Aug 2019.

Narracoorte: Leopard or Footman Moth, Aug 2019.

Diamond Ck: Root Mealybug, one of the sap-sucking insects which are pests on such things as artichokes.

Castlemaine: Your specimen was not a centipede but a millipede. Both have many legs but centipedes are flattened and have one pair of legs per segment while

millipedes are rounded and have two pair of legs per segment. Centipedes are carnivorous and do good in the garden while millipedes are vegetarian and do harm by eating plants.

Fitzroy: House Centipede or “Johnny Hairylegs” a centipede which is harmless but does good by eating insect pests.

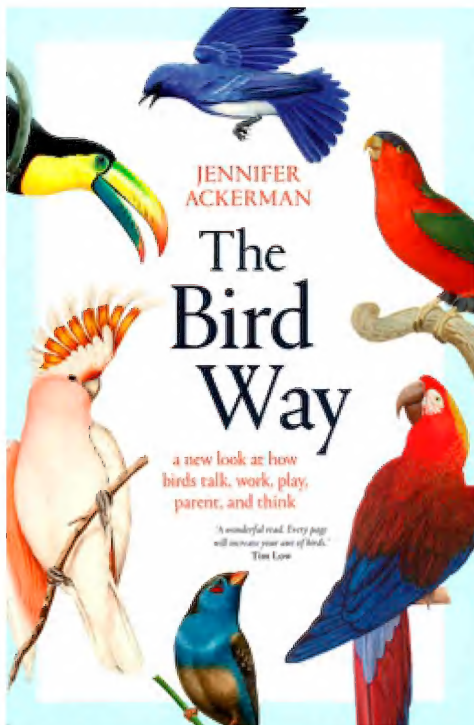
DeepLead: One of the gecko lizards which live under bark and feed on insects. its name is *Gymnodactylus miliusii*. See June 2018.

Several readers inquired about the Orchard or “Bird-dropping” Spider, which has been mentioned several times in this NL.

Book Review: “The Bird Way by Jennifer Ackerman”

Hans van Gemert

I first discovered this book early in July of this year when the Weekend Australian magazine had an article which really was an edited extract of one chapter from Jennifer Ackerman’s recent publication “The Bird Way”, which has the descriptive subtitle “A new look at how birds talk, work, play, parent and think”. I was so impressed with the material I read that I immediately went to Stonemans Bookroom and obtained a copy (\$35.00) which had just arrived.



Many people interested in birds may be familiar with her earlier book entitled “The Genius of Birds” and it is Jennifer’s research for that book which also sparked the present publication. She describes in great detail how numerous aspects of bird behavior such as problem solving, decision making, use of tools, navigation, memory, selection of a partner, use of song, food selection, etc. involve mental skills associated with higher intelligence. It has been established by several scientists that the avian brain has developed a technique for packing more neurons in a certain space than the brains of mammals including primates. Or, to put it in her own words: “birds have the potential to provide much higher cognitive clout per pound than do mammalian brains”.

The layout of the text roughly follows the description of the subtitle so several chapters are devoted to talking and vocal communication including bird song. Many of our members were in the “virtual audience” when Jennifer spoke about her book from her home in Virginia, USA at a Zoom meeting organised by the Geelong Regional Library and chaired by well known bird enthusiast Sean Dooley, some weeks ago (see footnote). She illustrated her talk with stunning photographs representing all parts of the bird world including many parts of Australia.

She emphasises that bird song is as varied as their plumage. Their visual acuity and wavelength range are greater than those of mammals again due to the

structure of the brain as well as the retina. Until fairly recently it was generally believed that complex birdsong was almost exclusively a male trait. Recent research by scientists has shown that in more than two-thirds of songbird species surveyed, female song occurs which is “structurally similar to male song (long and complex) and used for similar purposes”. It is now thought that in some species which have a long migration in their breeding cycle, the female may have lost her singing ability through evolutionary development.

Many birdwatchers in SE Australia are familiar with the alarm call of the New Holland Honeyeater to warn other little birds about the imminent presence of a cat, a bird of prey or other dangers. Some researchers, including Australian PhD student Jessica McLachlan, have now established that this alarm call consists of a complex language containing up to 96 elements with information about the type of danger, its location, direction and speed. There are many other species with a similarly structured language and demonstrated examples of birds learning from each others’ sounds about dangers they have not experienced personally.

There are moving and hilarious chapters about various cuckoos, bowerbirds, kea and brush turkeys. The descriptions of brood parasitism by a variety of cuckoos feels like watching a Hitchcock film and makes one feel sorry for the bee-eaters, wrens, thornbills and other small species. One study showed that one pair of cuckoos would parasitise 10 to 15 fairy-wren nests requiring the female to memorise the location of each nest and calculate the timing of her single egg production so as to be in sync with the host’s eggs. When the time comes she will remove one egg and replace it with her own all within 6 seconds. She has a larger hippocampus enabling a superior memory and spatial awareness.

The male bowerbird constructs a lavishly decorated structure and uses it as a backdrop for his song and dance to woo a female. Often hundreds or thousands of objects are collected and carefully arranged to impress. In the end only a small percentage of displays result in a mating as the female is very choosy. Jennifer calls the New Zealand kea the clown of the mountains as they have a strong mischievous streak. Motorists and campers are warned about the damage they can inflict. One researcher who has studied them for years has decided that although kea are highly social they have no motivation to establish a pecking order. They prefer to engage in rough and tumble horseplay and have fun.

I will let Jennifer have the last word: “We understand now that birds are not just biologically distinct but culturally distinct – and this is true even within a species. Birds learn styles of singing, bower building, playing that vary from one place, one population, to another. Palm cockatoos, kea, kelp gulls, great tits, superb fairy-wrens and superb lyrebirds have taught us that birds use social learning to master different methods of foraging, to grasp the identity of their enemies, to master the dialect of their region or their own distinctive drumbeat. Clearly, there is no one way to be a bird, just as there is no one way to be a human.”

footnote: The presentation Jennifer Ackerman gave through the auspices of the Geelong Regional Library last July is still able to be watched using Youtube, but unfortunately it does not include her fabulous slides. The introductory discussion with Sean Dooley and the question and answer session may be seen by using the following search terms in a search engine: geelong jennifer ackerman sean dooley the bird way youtube.

Photo Observations

Jill Williams

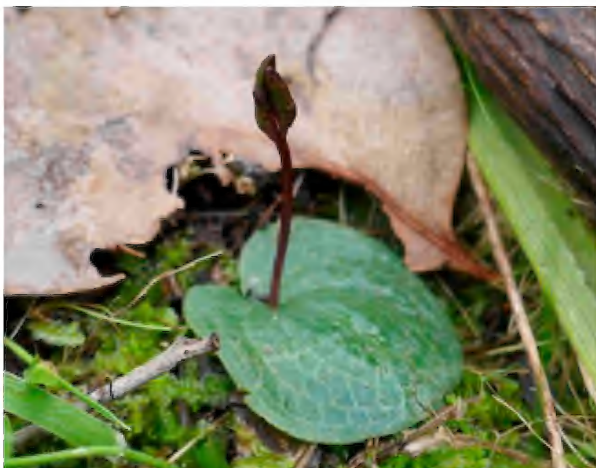
1. Tree and moss 'symbiosis' at Rise and Shine. A secretion or leaching perhaps?
2. Sundew plant at 'The Cascades' - *Drosera hookeri*?
3. Frog rescued from middle of gravel road, Shepherds Flat - Spotted or Striped marsh frog - *Limnodynastes tasmaniensis* or *L. peronii*?
4. Two-lined spittle bug (adult) - private land, Shepherds Flat - *Prosapia bicincta*?



Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Geraldine Harris

- 1 *Pterostylis nutans* (Nodding Greenhood)
- 2 *Pauridia (Hypoxis) vaginata* (Yellow Star) - see single sheath on stem as opposed to two tiny white appendages on the *P. glabella* (Tiny Star)
- 3 *Drosera aberrans* (Scented Sundew)
- 4 *Pterostylis curta* (Blunt Greenhood) - a new species for our place
- 5 *Cyrtostylis reniformis* (Small Gnat Orchid) in bud - leaves green underneath - also a new species for our place
- 6 A very sluggish bee heavily laden with pollen (taken by Natasha Harris at Muckleford).



Rosemary and Peter Turner Wattle Flat Wander – 28 August 2020.

Our morning walk on 28th of August was around the Centre Track – Boundary Track loop in Wattle Flat forest. A pleasing list of wildflowers for a one hour wander, accompanied by the calls from a large flock of White-winged Choughs. And two hungry caterpillars – to be identified.

Flowering:

Nodding Greenhood *Pterostylis nutans*
Fairy Waxflower *Philothea verrucosa*
Billy Button *Craspedia variabilis*
Leopard Orchid *Diuris pardina*
Pink Bells *Tetraloche ciliata*
White Marianth *Rhytidophrum procumbens*
Tall Greenhood *Pterostylis melagramma*
Gorse Bitter-pea *Daviesia ulicifolia*
Scented Sundew *Drosera aberrans*
Climbing Sundew *Drosera macrantha*
Early Nancy *Wurmbea dioica*

Slender Rice-flower *Pimelea linifolia*

Yam Daisy *Microseris lanceolata*

Gold-dust Wattle *Acacia acinacea*

Rough Wattle *A. aspera*

Golden Wattle *A. pycnantha*

In bud:

Sticky Everlasting *Xerochrysum viscosum*

Chocolate Lily *Arthropodium stricta*

Fireweed *Senecio glomeratus*

Grey Everlasting *Ozothamnus obcordatus*

Black-anther Flax-lily *Dianella revoluta*

Waxlip Orchid *Glossodia major*



Further record of the Striped Legless Lizard, *Delma impar*

David Cheal

In July 2019, I was planting some Lightwood (*Acacia implexa*) in a rocky paddock of my property in North Redesdale Rd., Redesdale. In the bottom of one planting hole I noticed a small, attractively marked legless lizard (see pic). It looked like a Striped Legless Lizard. However, I am not an herpetologist so I sent the photo to noted expert, Peter Robertson. He confirmed the identification. It is(or 'was') *Delma impar*.

The western half of my property is on a Tertiary basalt flow, with the associated abundant surface rocks and fine-grained, fertile clay loams. But this site, unlike most others for *Delma impar*, was not the typical native grassland that is usually described as the species' habitat. Canary Grass (*Phalaris aquatica*) over-dominated the site, to the exclusion of most other species. Phalaris is a perennial tussock grass of high bulk and thus provides useful cover for the Striped Legless Lizard, which may also use the exposed rocks as either basking sites or sites to acquire warmth on cooler days. I've included a few photos of the site.

The Striped Legless Lizard is listed as 'Vulnerable' nationally and 'endangered' in Victoria. More information can be found in *Frogs and Reptiles of the Bendigo District* by Darren Green and Dale Gibbons (pub. Bendigo Field Nats.).



Birds of Sutton Grange August 2020

Nigel Harland

Superb Fairywren
Australian Magpie
Yellow-tufted Honeyeater
Long-billed Corella
Spotted Pardalote
Red Wattlebird
Galah

Red-browed Finch
Australian Raven
Sulphur-crested Cockatoo
Crimson Rosella
New Holland Honeyeater
Eastern Spinebill

White-browed Scrubwren
Laughing Kookaburra
Yellow-tailed Black Cockatoo
Striated Pardalote
Welcome Swallow
Yellow-faced Honeyeater

Euan Moore

- 1 Brush Bronzewing, Leanganook Track, 14/08/2020 (cover photo)
- 2 *Diuris chryseopsis*, Golden Moths, Kalimna Park, 15/08/2020
- 3 *Cyanicula caerulea*, Blue Caladenia, Kalimna Park, 09/08/2020
- 4 *Diuris pardina*, Leopard Orchid, Eureka Mine, 26/08/20
- 5 *Ceratiomyxa* sp. Probably *C. fruticulosa*, Honeycomb Coral Slime Mould, forming small white patches on track. 15/08/2020



The Monash Yellow Robin genetic project

Noel Young

It is unfortunate that Lana Austin will not be telling us about the fascinating research being done by Monash University on the genetic variation in the E Yellow Robin, so It seems appropriate to introduce you to one of the “volunteers”. I photographed him on three different occasions, and his bangles show that he stays in his local territory close to the Railway Dam. Lana identified him as **pu – lb/or** (band colours), a male at least 2 yrs old. He turned out to be of “coastal” lineage, so is now left in peace as they are looking for hybrids between coastal and inland variants.

The hybrid zone is only 20 – 40 km. Wide, and runs mostly alongside the Great Divide. Limited interbreeding occurs across the zone which locally runs through Newstead and Sedgewick, however the two forms are genetically distinct and do not interbreed freely or successfully, although they look the same.



16 December 2019



25 March 2020

This may be an example of how speciation evolves, and has an important bearing on such questions as adaptation to climate change.

There is a detailed outline of the research on their website – well worth a look. Search for 'monash university eastern yellow robin project'

Wildflowers in September

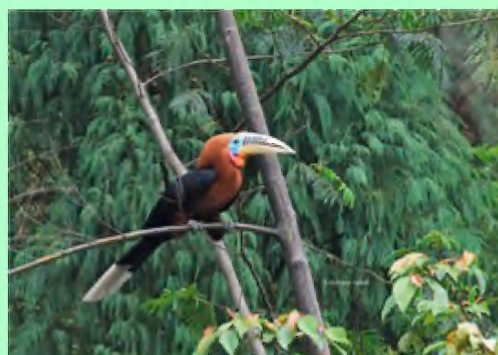
Our usual program of Wednesday afternoon Wildflower Wanders cannot occur while COVID-19 restrictions continue – yet another disappointing impact of the virus. Your Committee suggests that members whose walks for exercise are through areas where wildflowers are emerging as Spring approaches note the species that are flowering, with a quick stop for a photo where possible. Repeating this on a weekly or fortnightly basis along the same route will provide an interesting record of this season, after good winter rain. Short reports on these observations with photos of special sightings will be welcomed by our Newsletter's editors – email to newsletter.cfnc@gmail.com.

Guest Speakers for September

In May 2019 Giles Daubeney and Nina Tsilikas travelled to Bhutan on an 18 day tour to see the stunning birds and nature of this beautiful country. They travelled with the Off to Bhutan Birding company with four other birders who also happened to be from Australia! The tour started in Guwahati India and finished in Paro, Bhutan.

In the presentation planned for September they will cover some of the species of birds that were seen as well as some of the species of fauna, insects and plants. They will also describe the countryside they visited as well as the friendly people and their culture.

Rufous-necked Hornbill



Castlemaine Field Naturalists Club

COMING EVENTS

Monthly meetings are being held on line via ZOOM during the epidemic restrictions, commencing at 7.30 pm. If you have registered for our previous webinar meetings you will be sent the link for registering with Zoom. If you have not joined before and wish to attend, please email Peter Turner at munrods1@inet.net.au

Our guest speaker will follow the usual 'observations' session when members can share recent interesting sightings with an option to show a photo by the 'share screen' option (if unfamiliar with this, please ask Peter for advice)

Lana Austin has had to withdraw as September speaker, but will be replaced by GILES DAUBENEY and NINA TSILIKAS presenting their trip to Bhutan.

Friday Sept 11: GILES DAUBENEY and NINA TSILIKAS on nature in Bhutan

Friday Oct 9: GREG KERR: Restoration of wetlands

Friday Nov 13: NOUSHKA REITER: Conservation of threatened Orchids

Friday Dec 11: Member's night

Business meetings - third Thursday of each month, are being conducted online.

Club website (Web master: Ron Wescott) - <http://castlemainefnc.wordpress.com/>

Castlemaine Naturalist - email newsletter material to: newsletter.cfnc@gmail.com

*Deadline for the October edition is 25th of September

Subscriptions for 2020

Ordinary membership: Single \$35, Family \$50

Pensioner or student: Single \$25, Family \$30

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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President:	vacant	
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Treasurer:	Geoff Harris	0418 392183
Editors:	Noel Young 5472 1345,	Jenny Rolland 0400 565 092
Committee:	George Broadway	5472 2513
	Euan Moore	0407 519 091
	Richard Piesse	0448 572 867

**Castlemaine Field Naturalists Club Inc. PO Box 324, Castlemaine, 3450.
Inc #A0003010B**